

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

Claims 1-59 (Canceled)

60. (Currently Amended) A method for stabilizing adjacent vertebrae of a spine, comprising:

providing a cutting device including a rotating cutting implement having a midpoint;
positioning a portion of the cutting device proximal a surface of the adjacent vertebrae
and so that the midpoint of the rotating cutting implement is positioned opposite to the
intervertebral space between the adjacent vertebrae;

wherein the rotating cutting implement is configured and arranged so as to rotate in a
plane that is at an angle with respect to the surface of the adjacent vertebrae;

rotatably cutting a common channel at the same time in the adjacent vertebrae with the
rotary cutting implement; and

inserting an implant into the common channel so that the implant extends between the
adjacent vertebrae and through the intervertebral space, the space between the adjacent vertebrae.

61. (Previously Presented) The stabilizing method of claim 60 wherein the cutting
device being provided is configured such that the rotating cutting implement is moveable
between a first position in which the rotating cutting implement is disposed within the cutting
device and a second position in which a portion of the rotating cutting implement extends outside
of the cutting device and wherein the step of rotatably cutting includes moving the rotating
cutting implement to the second position so as to rotatably cut the common channel at the same
time in the adjacent vertebrae.

62. (Previously Presented) The stabilizing method of claim 60 wherein the implant includes a spacer element and wherein the step of inserting includes inserting the implant into the common channel such that the spacer element is disposed in the intervertebral space.

63. (Previously Presented) The stabilizing method of claim 60 wherein the step of positioning includes positioning the cutting device so the rotating cutting implement midpoint is located at the midpoint between the adjacent vertebrae

Claims 64-79 (Canceled)

80. (Previously Presented) A method for stabilizing adjacent segments of a mammalian bone, comprising the steps of:

providing an arcuate implant member (a) having a length that is sufficient so the arcuate implant member extends between two adjacent bone segments, (b) having a cross-section sized so that portions of the arcuate implant member including ends thereof extend through a preformed aperture that is formed in each of the two adjacent bone segments, and (c) being configured so that the arcuate implant member lies in a plane as it extends between the adjacent bone segments and as the portions thereof extend through the preformed apertures;

implanting the provided arcuate fixation member so that (i) it extends between the adjacent bone segments, and (ii) so that the portions of the arcuate fixation member including ends thereof extend through the preformed apertures in each of the adjacent bone segments; and

wherein the apertures formed in each of the two bone segments define an arcuate path in the plane and wherein the provided arcuate implant member is further configured so as to correspond to the arcuate path defined by the apertures.

81. (Previously Presented) The method of claim 80, further comprising the step of localizing opposing portions of the adjacent bone segments proximal to each other before said step of implanting.

82. (Previously Presented) The method of claim 80 wherein the preformed aperture has been drilled in each of the adjacent bone segments.

83. (Previously Presented) The method of claim 80 further comprising the step of forming a through aperture in at least one of the adjacent bone segments.

84. (Previously Presented) The method of claim 83 wherein said step of forming further includes forming a through aperture in each of the adjacent bone segments.

85. (Previously Presented) The method of claim 80 wherein the preformed apertures in each of the adjacent bone segments are formed so as to have a common axis of rotation.

86. (Previously Presented) The method of claim 85 wherein the preformed apertures in each of the adjacent bone segments are formed in the respective bone segment by one of drilling or ablation of the bone by an energy source.

87. (Currently Amended) A method for stabilizing adjacent segments of a mammalian bone, comprising the steps of:

forming an arcuate aperture in each of a through aperture in at least one of the adjacent bone segments, where at least one of the apertures is a through aperture;

implanting an arcuate fixation member so that it extends in a plane between the adjacent bone segments and so portions of the arcuate fixation member including ends thereof extend through the preformed aperture in each of the adjacent bone segments and so the arcuate fixation

member lies in a plane as it extends between the adjacent vertebrae and as the portions thereof extend through the preformed apertures; and

wherein the step of forming includes forming an aperture in at least one of the adjacent bone segments by one of drilling or ablation of the bone by an energy source.

88. (Currently Amended) A method for stabilizing adjacent segments of a mammalian bone, comprising the steps of:

forming a through aperture in each of the adjacent
~~bone segments; segments~~

wherein the step of forming includes drilling the through aperture in each of the adjacent
bone segments so as to create intersecting apertures with convergent paths; and

implanting an arcuate fixation member so that it extends in a plane between the adjacent bone segments and so portions of the arcuate fixation member including ends thereof extend through the preformed through aperture in each of the adjacent bone segments and so the arcuate fixation member lies in a plane as it extends between the adjacent vertebrae and as the portions thereof extend through the preformed through apertures. ~~apertures; and~~

~~wherein the step of forming includes drilling an aperture in each of the adjacent bone segments so as to create intersecting apertures with convergent paths.~~

89. (Previously Presented) The method of claim 80, wherein the step of implanting includes successively moving one of the portions of the arcuate fixation member through the preformed aperture in one adjacent bone segment and into the preformed aperture of the other adjacent bone segment.

90. (Previously Presented) The method of claim 80 wherein the arcuate fixation member is made from one or more of a metal, bone, morphogenic protein, carbon fiber composite, nitinol or a biodegradable material.

Claims 91-100 (Canceled)

101. (New) The stabilizing method of claim 60 wherein the rotating cutting implement is configured and arranged so as to rotate in a plane that is essentially orthogonal to the surface of the adjacent vertebrae.

102. (New) The stabilizing method of claim 60 wherein rotation of the rotating cutting implement occurs in a plane that is at an angle greater than 0° with respect to the surface of the adjacent vertebrae.

103. (New) The stabilizing method of claim 60 wherein the rotating cutting implement is configured and arranged so as to be capable of making a cut having a width and a length where the width of the cut is smaller than the length of the cut.

104. (New) The stabilizing method of claim 60 wherein the common channel rotatably cut in the surface of the adjacent vertebrae has a width and a length where the width of the channel is smaller than the length of the channel.